

ADOLESCENT AND ADULT PRIMIPAROUS INFORMATION  
NEEDS AND CONCERNS REGARDING INFANT CARE

by

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## ABSTRACT

Traditionally postpartum infant care classes have been structured to meet the educational needs of the adult mother. Due to the increasing number of pregnant adolescents, the educational needs of the adolescent mother must be assessed. With this information postpartum infant care classes can then be structured to effectively assist the adolescent to assume her role of mother.

The goal of this descriptive study was to identify and compare infant care questions and concerns of adult and adolescent primiparous women. Data obtained through questionnaires were analyzed in terms of the number and importance of infant care questions and concerns of the subject.

The comparing of demographic data revealed that more differences exist between the two groups than those solely based on age. The first hypothesis, adolescent primiparous women would choose a significantly different number of questions and concerns concerning infant care than adult primiparous women was statistically supported. The adult mothers asked more questions than adolescent mothers, but the reason for the significant difference has not been uncovered. Hypothesis II, adolescent primiparous mothers would have significantly different needs and concerns than adult mothers was not statistically supported. The descriptive statistics did show that each group has specific questions and concerns they felt were more important.

The results of this study indicated a need for further study. Recommendations were made in the deliverance of nursing care to adolescent mothers.

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## CHAPTER I

### INTRODUCTION

The fertility rate in the United States has declined dramatically within the last decade. The rate of fertility has decreased more rapidly among older women than adolescents. Seventeen percent of the maternity population in 1978 was composed of adolescents. Adolescents accounted for 31 percent of the primiparous women (Moore, Hofferth, Wertheimer, Waite, & Caldwell, 1981). Concurrently, the adoption rate of out of wedlock births has declined as it has become the trend for adolescent mothers to raise their infants (Zelnik & Kanter, 1978). This change in the maternity population is important to those providing patient education, since the needs of the adolescent mother for education may be vastly different from the educational needs of adult women.

Patient education is important to the care of the total patient (Lamberton, 1972). In obstetrical care, the postpartum period has been identified as an opportune time for patients to learn skills which are specific to mothering (Parad, 1965). For this reason, infant care classes have been established on most post-partum units. Most infant care classes have been traditionally designed for a population of adult mothers. Today it becomes increasingly important to include the adolescent mother's needs within the structure of infant care classes, to assist her in assuming the tasks associated with mothering (Steinman, 1979).

In order to make adjustments in the present infant care classes, it is necessary to identify differences between adolescent and adult women regarding infant care needs and concerns. The ultimate purpose in comparing adult and adolescent mothers' concerns and informational needs is that this knowledge will assist in the identification of information specific to adolescents that may be included within the structure of infant care classes and individualized instruction.

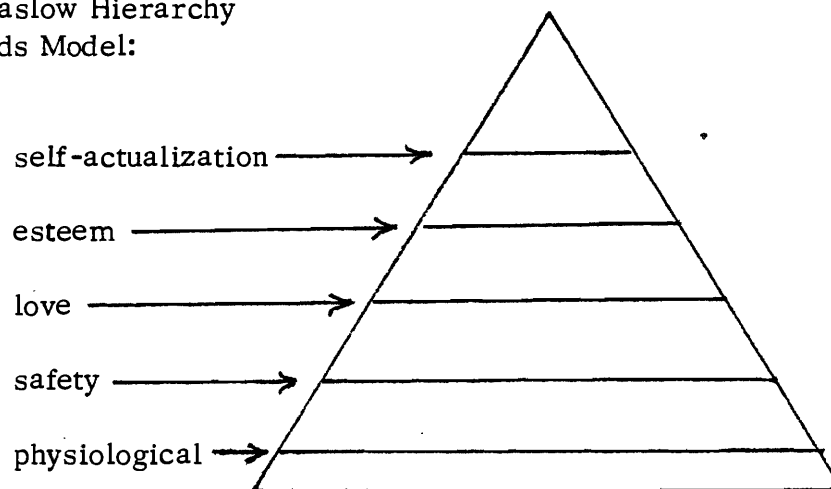
While the post-partum period has been identified as the critical time for learning mothering tasks, it is also the time during which the maternal-infant bonding relationship begins to develop (Klaus & Kennell, 1976). Since obstetrical nursing practice goes beyond physiological care, this is an opportune time to assist the patient in the taking-hold of her maternal role (Rubin, 1967). A mother may perceive herself as a failure in her role if she thinks that she is unable to meet her infant's needs (Rubin, 1961). From this premise, infant care classes might be used as a vehicle for health maintenance teaching and anticipatory guidance for the adolescent mother in order to facilitate the maternal-infant attachment process.

### Conceptual Framework

The Maslow Hierarchy of Needs emphasizes the necessity that basic needs of the individual be met in order for higher needs to emerge. When relating this theory to the maternal role, it is important for the mother to meet the physiologic needs of her infant (shelter, fluids, food, and sleep) in

order for the infant and herself to proceed to what Maslow refers to as the need of belongingness or love (maternal-infant bonding). Maslow concluded that once the basic needs are met, the individual can live at a higher needs level. The end result is that the individual has a greater potential to develop close relationships, self-esteem, and adult self-actualization (Maslow, 1970).

The Maslow Hierarchy of Needs Model:



The taking-hold of the maternal role poses more problems for the adolescent mother because she is expected to change rapidly from an individual who is dependent into a responsible parent upon whom the child depends (Copeland, 1979). The adolescent stage of development involves the achievement of identity. If an adolescent mother fails at achieving a personal identity, she will be unable to proceed to intimacy which is the basis of the maternal-infant relationship (Erikson, 1963).

In order to initiate the teaching-learning process for post-partum mothers, it is important to identify what this group needs to know. The nurse not only assesses the adolescent patient's informational needs, but

permits her to verbalize what she deems important to health care. It is important to remember that a patient is not a receptive learner unless convinced of the need to learn (Redman, 1976). This is specifically true with regard to adolescent mothers (Bracken, 1971; Copeland, 1979).

An infant care teacher who considers the adolescent mother's learning needs, concerns and her stage of development will facilitate identity achievement rather than causing additional role confusion. The information obtained from this investigation could be of use in the development of infant care classes which can better meet the needs of the adolescent who is making the transition to the role of being a parent.

### Review of Literature

#### Problems Associated with Adolescent Pregnancy

Pregnant adolescents are classified as high risk obstetrically. Adolescents are high risk because of biological, sociological, and psychological factors related to the age group (Badger, Burns, & Rhoads, 1976; Dott & Fort, 1976; Osofsky & Osofsky, 1970). It is the responsibility of providers, whose population of clients includes pregnant adolescents, to consider these areas when devising a strategy for care (Petreela, 1978).

Pregnant adolescents between the ages of 16 and 19 years are capable of performing as well obstetrically as women between the ages of 20 and 29 years, the optimal childbearing age. Adolescents below the age of 16 years are especially high risk because of physiologic immaturity. Pregnant

adolescents between the ages of 14 and 15 years experience a high incidence of cephalopelvic disproportion (Dott & Fort, 1976) which is one of the reasons for the high number of Cesarean sections in adolescents of this age group (Osofsky & Osofsky, 1970).

Other contributing factors to high risk pregnancy for adolescents are low socio-economic level, limited education, and the lack of completion of developmental tasks. The majority of adolescents reside in poverty settings (Dott & Fort, 1976). Many pregnant adolescents are from low socio-economic areas which are responsible for poor housing and nutrition (Dott & Fort, 1976). Anemia (iron-deficient) is often diagnosed in pregnant adolescents, and its etiology is poor nutrition (Dickason & Schultz, 1979; Dott & Fort, 1976; Osofsky & Osofsky, 1970). Adolescents probably receive minimal prenatal care because of: (1) denial of the pregnancy, (2) ignorance of need for health care, (4) non-availability of services, and (4) lack of finances (Dott & Fort, 1976).

The incidence of toxemia is increased among pregnant adolescents (Dickason & Schultz, 1979). Its occurrence decreases with an increase in age and prenatal care (Dott & Fort, 1976). The incidence of abruptio placenta is higher in adolescent pregnancy because of its association with toxemia (Dott & Fort, 1975).

The pregnant adolescent's physiologic status can affect the infant's physiological well-being (Badger et al., 1976). Adolescents have been noted to have a higher incidence of fetal wastage and infant morbidity because of prematurity and neurologic defects (Dott & Fort, 1976;

Osofsky & Osofsky, 1970). It is important to emphasize that high-quality ante-natal care does reduce morbidity and mortality in the mother and her infant. The availability and the use of optimal care for the pregnant adolescent is rare (Dott & Fort, 1976).

Often infants of adolescent mothers are low birth weight or small for gestational age (Osofsky & Osofsky, 1970). At three, six, and nine months these infants are below the 50% percentile for normal weight (Mercer, 1980). It has been hypothesized that the maturational lag of these infants is due to constitutional and/or environmental factors, and poor material nutritional habits during the ante-partum period (Osofsky & Osofsky, 1970).

The pregnant adolescent also faces social and psychological problems (Delissovoy, 1973a). Pregnancy is generally looked upon as a crisis in a woman's life. In addition, the pregnant adolescent is attempting to complete her developmental tasks and assume new roles of mother and possibly wife (La Barre, 1972). The pregnant adolescent is usually overwhelmed and adapts poorly to the crises that have arisen because of pregnancy (Dickason & Shultz, 1979). Her education has been interrupted, and it is difficult to resume it. Because she is not adequately prepared for a vocation, the pregnant adolescent's only choices may be the welfare system or a job that insufficiently meets her economic needs (Delissovoy, 1973a).

Oppel and Royston (1971) found that adolescent mothers are less likely to stay with their children. Some who attempt to raise their children do so in home settings that have been classified by social workers as



unhealthy. The children of adolescent mothers are characterized as having more behavioral problems and act out more often. It has been noted that there is a higher incidence of reading deficiency and lower scoring on IQ tests in these children.

Adaptation to the maternal role needs to begin directly after delivery. An adolescent mother begins to learn that her life will be centered around the infant's needs at the time of delivery. Emotional and physical interactions that she has with her infant will focus upon its physical needs and temperament (Mercer, 1980). Throughout the pregnancy the adolescent may have been dependent upon people within her surrounding environment, especially her mother. Subsequently, the adolescent mother finds herself in a position where her infant is totally dependent upon her. Her concerns must not only focus upon her own needs but those of her infant's health and the physical tasks she must perform that will provide comfort for her infant. The adolescent judges her success at being a mother by how well she feels her infant's status of well-being is maintained (La Barre, 1972).

Hostility has been reported in adolescent mothers who did not attain the mothering role. Steinman (1979) found that hostility was expressed as rejection, anger, sarcasm, and fault-finding by the adolescent mother. This emotion was usually demonstrated during the second to fourth post-partum week. This was identified by the researcher as the period when the mother realized the full impact of the maternal role. The intervention by nurses working with adolescents, involves assisting them to assume the role of

mother. It is especially necessary to educate them in what to expect, thereby reducing possible child abuse and neglect (Schweitzer & Youngs, 1976).

In summary, the typical adolescent mother is striving towards achieving her own identity. She is less educated cognitively and socially, her economic status is low, and her pregnancy may be disruptive and result in placing additional stress on the family structure. Because of these and other problems, the infant's physiologic, psychologic, and cognitive development is less likely to progress properly (Badger et al., 1976). It is critical that the adolescent mother be taught to respond sensitively to her infant's growing needs. Continuous support should be given from home and community sectors because of the mother's needs to complete her own development tasks, as well as to enable her to assume properly the role of mother (Badger et al., 1976; Bracken, 1971; Mercer, 1980; Oppel & Royston, 1971).

#### Maternal-infant Bonding Process

Maternal-infant bonding is the actual attachment of the mother and infant to one another emotionally (Ludington-Hoe, 1977). For the mother, this attachment begins during her pregnancy. This process consists of role-play, fantasy, and mimicry as she attempts to prepare for the birth of her infant (Rubin, 1967).

The process of bonding between the mother and infant is essential to the formulation of their relationship. In time, the bonding process facilitates an interdependent relationship. At birth, since the infant is totally dependent,

it is important for the infant to feel secure in his relationship with his mother. Maternal bonding is critical because it allows the mother to assume the responsibilities associated with infant care (Wilson, 1979).

The bonding relationship does not occur instantaneously. Bonding continues after delivery through various maternal-infant contacts. The early mother-to-infant eye to eye contact begins their affectional ties (Klaus, Kennel, Plumb, & Zuehlke, 1970). The mother's tactile investigation of the infant which is orderly and predictable (Klaus et al., 1970) and her passively/actively reaching for her infant (Ludington-Hoe, 1977) are included in the initiation of bonding.

The role of mother includes two facets: (1) emotional factors, and (2) physical care-taking. These factors are interrelated (Ludington-Hoe, 1977). If the pregnancy and/or the delivery proved difficult physiologically, socio-logically, and/or psychologically, negative feelings may hinder the bonding process (Wilson, 1979). This can be demonstrated through the mother not wanting to get involved in physically caring for her infant. Nurses have the responsibility for assessing the maternal-infant relationship and attempting to facilitate the bonding process.

#### Post-partum Education

Unlike other infant mammals, human infants are totally dependent because they are not capable of meeting their own needs (Wilson, 1979). Within our society, the mother is primarily responsible for the infant's care.

Care-taking responsibilities include tasks which insure the physical health and comfort of the infant (Adams, 1963). During the post-partum period, the hospital or birthing center provides classes about infant care. Generally, infant care classes provide information by the lecture method (Badger et al., 1976). The content of classes usually includes information that will aid the mother to adapt to her new role. This information usually includes: (1) equipment and supplies needed, (2) formula preparation or breastfeeding, (3) bathing, (4) sleeping, (5) bowel movements, (6) crying, (7) colic, (8) common problems and worries (Department of Health, Education and Welfare, 1973).

Adolescent mothers need instruction in parenting because of lack of preparation to assume the new role (Nelson, 1973). Educators who conduct infant care classes and those who come in contact with adolescents may fail to remember that they are undergoing two developmental tasks simultaneously: assuming the roles both of adult and mother. As educators, obstetrical nurses can assist in the formulation of the maternal-infant bond by teaching about parenting. Yet, in order to successfully teach about mothering, it is important to assess what adolescents want to learn in order to facilitate learning rather than confusion (Corbin, 1957). The adolescent mother must be encouraged and allowed to express her needs and concerns for herself and her infant (Bracken, 1971).

A problem that can occur when teaching parenting skills is the possibility of interfering with the childrearing practices and cultural norms of the

mothers. It is also essential to support the adolescent mother's sense of self-worth and competency about her own abilities (Nelson, 1973).

Presently, there is virtually no literature that is well suited to address the adolescent's needs for information during the post-partum period (Ambrose, 1978). The same is true of the majority of post-partum infant care classes; they have failed to investigate the parenting practices and concerns of adolescents. Most information gathered about adolescents is either generalized from extreme cases or stereotyped information. Therefore, it is imperative that research be done in order to establish effective programs. Federal funds are supporting recently established parenting programs for adolescents within junior high and high schools. These funds are also responsible for pre- and post-natal services for the adolescent mother and infant (Badger et al., 1976). Adolescent parenting education and research can appropriately occur on the post-partum unit because it is the setting where the adolescent can learn and integrate previous knowledge.

### Hypotheses

1. Adolescent primiparous women will choose a significantly different number of questions and concerns about infant care than adult primiparous women.

2. Of questions and concerns about infant care, adolescent primiparous women will rank their importance significantly differently from adult primiparous women.

### Definitions of Terms

Concerns--includes the mother's anxieties about and interest in infant care.

Informational needs--the mother's questions specific to infant care.

Infant care activities--those activities which maintain the physical well-being of the infant.

Infant care classes--lectures given to mothers during the post-partum stay in a hospital setting, instructing them in physical activities that maintain the infant's well-being such as feeding and bathing.

Primiparous mother--a woman pregnant for the first time and whose infant is delivered viable.

Adolescent mother--primiparous woman between 15-19 years.

Adult mother--primiparous woman who is 22 years of age and older.

### Assumptions

1. Infant care classes provide health care instruction and anticipatory guidance that assist mothers to achieve the optimal levels of health for their infants.
2. Only after information needs and concerns have been accurately identified by the patients and teacher can meaningful health instruction be provided.
3. Mothers are the primary people involved in the delivery of infant

care.

4. Infant care activities are learned and mothers want to undertake them.

## CHAPTER II

### METHODOLOGY

#### Design

This descriptive study was designed to identify and compare infant care questions and concerns of adult and adolescent primiparous women. The study was conducted at the LDS Hospital and the University of Utah Medical Center in Salt Lake City, Utah. A pre-experimental design was employed, using a convenience sample. Data obtained through questionnaires were analyzed in terms of the number and importance of infant care questions and concerns of the subjects.

#### Subjects

A convenience sample of 12 healthy adult primiparous women and 12 healthy adolescent primiparous women participated in the study. Subjects met the following criteria:

1. Age appropriate: Adolescent ages = 15-19 years; adult ages = 22-30 years.
2. Primiparous pregnancy.
3. No complications during the prenatal period, labor, and delivery.
4. Delivery of a normal full-term infant.



5. Subjects were married and living with husbands.

Maternal health was assessed by means of the Hobel Risk Score (Hobel, 1973). Prenatal and intrapartum scores of less than 10 were required for subjects to be included. Newborn health was determined by Apgar scores (Apgar, 1966), absence of disease and a gestational age of 38-42 weeks which was also appropriate for the weight of the newborn.

#### Instrumentation.

Demographic information about the subjects was collected on a personal data sheet (Appendix A). After information was obtained the subjects were given a list of informational questions and concerns common to primiparous women. The subjects were asked to indicate those of importance to them and to rank order the five most important.

#### Procedure

The two groups of primiparous women were contacted individually by the investigator on the second and third day post delivery. A thorough explanation was given with an invitation to participate. Mothers who agreed to participate were asked to sign a consent form, and then given a personal data sheet. They were then asked : (1) to check the concerns and/or questions they have or anticipate having in provision of care to the infant, and (2) to rank each question or concern according to the level of importance to them. The questionnaire was collected that day. The questions they had

were answered by the investigator and hospital staff.

### Limitations of the Study

The instrument used in this study was designed by the investigator, and its validity and reliability were not previously established. Another limitation of this study was the small number of subjects used. Therefore, a major recommendation for this study would be to extend the time for data collection.

## CHAPTER III

### RESULTS AND DISCUSSION

#### Data Analysis

Data were analyzed comparing informational needs and concerns of adolescent and adult primiparous women. The data were analyzed using the Statistical Package for Social Sciences program (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) and the Univac 1100 computer at the University of Utah Computer Center. Cross tabulation of general descriptive statistics, chi-square calculations, one-way analysis of variance and t-tests were performed. Confidence levels were established at the 0.05 level.

#### Demographic Data

The total sample consisted of 24 postpartum women, divided into two groups according to age. Adolescents were assigned to Group I and adults were assigned to Group II. The dates of collection were from March 1, 1981 to June 28, 1981 at the LDS Hospital and the University of Utah Medical Center, both located in Salt Lake City, Utah.

Through the survey of the literature it became apparent that there was minimal information comparing adult and adolescent parents. For this reason each variable of Groups I and II was addressed to determine statistical

significance.

### Age

Mothers' ages. Ages of Group I ranged from 15 to 19 years of age with a mean age of 17.5 years and a standard deviation of 1.288 (Table 1). The ages of Group II ranged from 22 to 25 years with a mean age of 25 and a standard deviation of 2.503. Table 1 verifies that there was a significant difference between the two groups' average ages. This difference was expected since subjects were grouped according to their ages.

Table 1

#### Mothers' Ages

Mother's age	Group I	Group II
15	1	0
16	1	0
17	2	0
18	4	0
19	4	0
22	0	1
23	0	2
24	0	2
25	0	5
30	0	2

t value = 9.02; p < .000

Husbands' ages. The ages of husbands in Group I ranged from 17 to 27 years with a mean of 20 years and a standard deviation of 2.153 (Table 2). Group II's husbands' ages ranged from 23 to 41 years of age with a mean of 27.75 and a standard deviation of 5.029. There was a significant difference between the husbands' ages in Groups I and II, which would be expected because of the differences in the women's ages.

The groups in this study represent two stages of emotional and cognitive development. The developmental task assigned to Group I is identity versus role confusion (Erikson, 1963). This group must also simultaneously assume the role of parent. It is necessary for Group I to achieve the tasks of

Table 2  
Husbands' Ages

Age	Group I	Age	Group II
17	1	23	2
18	1	24	1
19	3	25	2
20	1	26	1
21	1	27	1
22	3	28	1
23	1	29	1
24	1	30	1
		32	1
		41	1

t value = 4.59; p < .000

adulthood in order for them to successfully make the transition from adolescence to becoming adult parents.

The establishment of intimate relationships (Erikson, 1963) is the assigned task of Group II because these adults theoretically have achieved a firm sense of identity. Adolescent mothers, on the other hand, are faced with the overwhelming tasks of acquiring their own identities and establishing intimate relationships with their infants. Because the subjects in Group I are married, they must additionally establish intimacy with their husbands.

Cognitively, Piaget (1963) states that the adolescent is capable of formalized operations. Even though adolescents are capable of formalized operations, it is not until 22-30 years of age that most of the adult population achieve formalized operational reasoning (Kohlberg & Galligan, 1971). Also, adults shift their cognitive processes from educational endeavors to situations that arise within adult society (Howe, 1977). The mothers of Group II are probably more able to cognitively handle the demands of parenthood than Group I because their ages suggest a greater degree of cognitive maturity.

### Education

Mothers' education. The years of education of group I ranged from 9 to 13 years with a mean of 11.0 years and a standard deviation of 1.379 (Table 3). Group II's years of education ranged from 12 to 17 years with a mean of 15.0 years and a standard deviation of 1.706. As a result of the age difference it would be expected that the two groups would also demonstrate significant

Table 3  
Mothers' Years of Education

Years	Group I	Group II
9	2	0
10	2	0
11	3	0
12	3	2
13	2	1
15	0	2
16	0	6
17	0	1

t value = 6.19; p < .000

differences in respect to their years of education.

Husbands' years of education. The years of education of the husbands of Group I ranged from 10 to 13 years with a mean of 11.5 years and a standard deviation of 1.084 (Table 4). Group II's husbands' years of education ranged from 14 to 20 years with a mean of 14.91 years and a standard deviation of 2.466. The husbands' years of education demonstrate a significant difference between the two groups. There is a noted similarity between the two groups in the level of education at 12 years.

Most of the adolescent mothers of Group I did not complete high school. In contrast, all of the subjects of Group II completed high school and 50% of

Table 4  
Husbands' Years of Education

Years	Group I	Group II
10	3	0
11	1	0
12	6	3
13	2	0
14	0	3
15	0	1
16	0	3
18	0	1
20	0	1

t value = 4.29;  $p < .000$

them were college graduates. The difference in educational levels between the groups may suggest a difference in their socio-economic status. The earning power of subjects of Group II is higher than Group I because of their educational level.

Broman's study (1981) reports that early childbearing was found to be inversely related to the socio-economic level of the mother. This finding is evident when comparing the mothers of Group I and Group II. A contributing factor responsible for complications associated with adolescent pregnancies is lower socio-economic status rather than age (Grant & Herald, 1972;



Osofsky & Osofsky, 1970). In lower class homes children have fewer opportunities for adequate health care, proper nutrition, and an environment which is intellectually stimulating (White, 1972).

The educational background of the parents of Group II gives them the knowledge base from which awareness and responsiveness to their infants' emotional and intellectual needs may develop. Therefore, they are more apt to raise their infants in an environment which is more conducive to the development of intellectual and social skills.

#### Period of Time Married

The years of marriage of Group I ranged from less than 1 year to 2 years (Table 5). Fifty-eight percent of Group I had been married less than a year and 41.7% had been married between 1 to 2 years. Group II's years of marriage ranged between less than 1 year to 3 years. Sixteen percent of Group II was married less than a year, 58% married between 1 year and 2 years, and 25% married between 2 and 3 years.

Table 5

#### Period of Time Married

Time Married	Group I	Group II
Less than a year	7	2
1 to 2 years	5	7
2 to 3 years	0	3

Chi square = 6.111;  $p < .04$

The majority of Group I had been married less than a year, which would be expected of parents in this age group. Because the subjects of Group II had been married a longer period of time, these data may suggest that the parent role was planned.

Young marriages occur more often among adolescents because of pre-marital pregnancy and/or because of a decreased interest in further education. As a consequence, marriage appears more attractive (Delissovoy, 1973b). Yet the many adjustments of newly married couples are more difficult among young couples, and their problems are more exaggerated because of their immaturity.

Marriages among young couples have a higher incidence of divorce (Bartz & Nye, 1970). As a result the children have less opportunity to experience a secure stable family environment. The birth of an infant to an adolescent marriage seldom contributes to stabilizing and deepening the marital relationship (Litz, 1976).

#### Experience in Caring for Infants

Eight percent of Group I reported not having any experience with caring for infants. Seventy-five percent stated that their experience was received from babysitting. Thirty-three percent of Group II reported not having any experience with caring for infants. Twenty-five percent stated that their experience with infant care was received from caring for siblings. The relationship between group membership and infant care experience was not statistically significant (Table 6).

Table 6  
Experience in Caring for Infants

Experience	Group I	Group II
No experience	1	4
Babysitting	9	2
Sibling	1	3
Work	1	2
Other	0	1

Chi square = 8.58788;  $p < .0723$

Group I's experience in infant care primarily stemmed from babysitting. The majority of the subjects had some experience in infant care, yet babysitting may provide limited experiences in an unrealistic environment. A greater number of subjects in Group II had no experience with infant care and what experience they did receive came from caring for siblings. Group II's experience in infant care varied having received it from a number of life experiences. This could be expected because age affords opportunities for varied experience.

#### Class Attendance

Group I's attendance at a class of instruction about infant care during their pregnancy was 33.3%. Sixty-six percent did not attend. Group II's attendance was 88.3%. Sixteen percent did not attend. The relationship

between group membership and class attendance was statistically significant (Table 7).

The subjects of this study were informed that attendance at a prenatal class was an acceptable medium from which to obtain information concerning infant care. All the subjects that responded positively to this question specified having attended prenatal classes.

It could be hypothesized that the 66% of Group I who reported that they did not attend a class or classes on infant care possibly:

1. Did not attend prenatal classes;
2. Missed the prenatal class that discussed infant care;
3. Attended prenatal classes that did not cover the subject (less likely to have occurred).

Group II's 88.3% attendance at class giving instruction on infant care during pregnancy raises the question as to whether this variable could influence the answers to other questions throughout the questionnaire. This issue is addressed in the discussion of the hypotheses.

Table 7

Class Attendance

Attendance	Group I	Group II
No	8	2
Yes	4	10

Chi square = 6.17143;  $p < .0130$

Information Gathered through  
Reading about Infant Care

Thirty-three percent of Group I reported that they had not read about infant care. Sixty-six percent read books or magazines concerning infant care. Sixteen percent of Group II reported not to have read about infant care and 83.3% reported reading magazines and/or books concerning infant care.

There is no significant relationship between the two groups regarding the reading done concerning infant care (Table 8). In reviewing the list of reading material, 4 of the subjects in Group I reported reading magazines. In Group II, 2 of the subjects reported reading magazines.

The difference in types of material read may be a result of:

1. The reading levels of the two groups (magazines address a lower reading level);
2. The financial status (books cost more than magazines);
3. The trend of the younger generation to read magazines.

The findings suggest that further research should be done to determine

Table 8

Mothers' Reading about Infant Care Information

Reading	Group I	Group II
No	4	2
Yes	8	10

Chi square = 2.222;  $p < .6374$

how this variable may influence the knowledge base of the two groups. Generally magazines only briefly discuss a topic whereas a book covers it more thoroughly.

#### Method of Feeding

Group I reported that 58.3% planned to breastfeed their infant, 25% planned to bottlefeed, and 16.27% planned to breastfeed and supplement with a bottle.

In reviewing the literature it has been noted that adolescents usually chose a bottle as a method of feeding (Nelson, 1973; Williams, 1974).

In comparing Group I and Group II there was no significant relationship between group membership and choice of feeding methods (Table 9). This may be explained by the influence of the local culture where breastfeeding is a widely accepted method of infant feeding.

Table 9

#### Method of Feeding

Method	Group I	Group II
Breastfeed	7	8
Bottlefeed	3	1
Breastfeed and supplement with a bottle	2	3

Chi square = 1.266;  $p < .500$

Approximate Time Spent  
with the Infant

Group I reported that 8.3% spent time with their infants only at feedings, 8.3% of the mothers were with them all day and night, 25% during the daytime, and 58.3% more often than just at feeding times but less than all day. Group II reported that 8.3% spent time with their infants only at feedings, 25% of the mothers were with them all day and night, 16.7% during the daytime, and 50% more often than at feeding times but less than all day (Table 10).

The findings of this variable suggest that the majority of these mothers did not participate in true to form rooming-in. Of those mothers who had their infants with them most of the day, the adolescent mothers kept their infants in the nurseries at night. More of the adult mothers kept their infants with them day and night. The relationship, however, was not statistically significant (Table 11).

Table 10  
Approximate Time Spent with the Infant

Time with Infants	Group I	Group II
At feeding times only	1	1
All day and all night	1	3
During the daytime only	3	2
More often than at feeding times but less than all day	7	6

Chi square = 1.276;  $p < .7346$

Table 11

Approximate Time Spent with the Infants of the Mothers  
who Participated in Rooming-in

Time Spent	Group I	Group II
All day and all night	1	3
During daytime only	3	2

Chi square = 1.048;  $p < .30$

### Hypothesis I

Adolescent primiparous women will choose a significantly different number of questions and concerns concerning infant care than adult primiparous women.

Each subject was given a questionnaire with a list of informational needs and concerns and was asked to select the ones of most importance to themselves. The number of informational needs and concerns chosen by Group I ranged from 3 to 15. The mean number was 9.0 with a standard deviation of 4.68. The range of informational needs and concerns chosen by Group II was 8 to 15. The mean number was 12.5 with a standard deviation of 2.505. The t-value for differences between the groups was statistically significant ( $t = 2.33$ ;  $p < .036$ ).

The results of this variable demonstrate that there was a statistically significant difference between the adolescents' and the adults' number of



informational needs and concerns regarding infant care. The adult mothers reported more informational needs and concerns, a finding which supports the hypothesis. Yet it was the investigator's premise that the adolescents would have expressed more informational needs and concerns.

Fillmore and Taylor (1976) hypothesized that "modal age category first-time mothers (20-24 years of age) would have lower average concern scores than first-time mothers below and above the modal age (15-19 years of age and 25-29 years of age)" (p. 19). The data did not support their hypothesis. Instead the modal age category mothers reported the highest concern scores.

Nothing in the literature was found to explain these studies' findings. It can be hypothesized that this group of mothers' lack of experience and inability to foresee what the mother's role entails may be responsible for a lower number of reported informational needs and concerns.

Because of the difference in the attendance of a class that covered information about infant care, the number of concerns were compared against class attendance (Table 12). The groups were subdivided into four more specific groups: Group 1 (no class attendance--adolescent); Group 2 (no class attendance--adult); Group 3 (class attendance--adolescent); Group 4 (class attendance--adult).

The analysis of class attendance assisted in ruling out the possibility that information acquired in the classes influenced the number of informational needs and concerns selected by the subjects.

Table 12

One-way Analysis of Variance of Attendance  
of an Infant Care Class

Source	D.F.	Sum of Squares	Means Squares	F Ratio	F Probability
Between Group	3	92.6833	30.8944	2.151	.1257
Within Group	20	287.2750	14.3637		
Total	23	379.9583			

### Hypothesis II

Concerning questions and concerns about infant care, adolescent primiparous women will rank their importance significantly different from adult primiparous women.

There was no statistically significant difference between Group I and Group II and their expressed informational needs and/or concerns. Yet in examining the percentage of questions asked regarding a specific topic, the findings indicated that the mothers in Group I and Group II had definite informational needs and concerns that differed from one another.

A search of the literature revealed very little information about adolescent parenting practice (Nelson, 1973; William, 1974). The topic of specific infant care informational needs and concerns was not addressed in the literature.

First Ranked Informational  
Need and Concerns

The mothers of Group I (41.5%) ranked the Pros and Cons of Breast-feeding and Formula Feeding as being their most important informational need. Group I ranked Feeding Technique as being their most important informational need. Jointly the two groups reported seven different informational needs and/or concerns as being ranked in the number one category (Table 13).

Adolescent mothers expressed informational needs and concerns that may suggest they do not really feel comfortable in their decision concerning the method of feeding and would like to have more information about the pros and cons of breastfeeding and formula feeding. The data also suggest that the

Table 13

First Ranked Informational Need and Concerns

Concerns	Group I	Group II
Pros and cons of breastfeeding and formula feeding	41.7%	8.3%
Feeding technique	8.3%	41.7%
Safety practices	16.7%	16.7%
Bathing	8.3%	.0%
Determining when and what to do if the baby gets sick	16.7%	8.3%
Infant growth/development	8.3%	16.7%
Maternal-infant bonding	.0%	8.3%

Chi square = 8.000;  $p < .2381$

mothers of Group II made a definite decision, and were concerned with acquiring more information about developing their skill in their method of choice.

#### Second Ranked Informational Need and Concerns

The mothers of Group I ranked Safety Practices and Bathing with equal importance (25%). Thirty-three percent of Group II ranked Determining When and What To Do during Infant Sicknesses as their second important informational need and/or concern (Table 14). Jointly Groups I and II reported 10 different informational needs and concerns in the second category of ranking.

The mothers of Group I may have expressed Safety Practice and Bathing as being important because several aspects of bathing need to incorporate various facets of Safety Practice. Group II's selection of Determining When and What To Do If the Infant Gets Sick as a need and concern demonstrates that they are preparing for possible problems after discharge from the hospital.

#### Third Ranked Informational Need and Concern

The mothers of Group I ranked Determining When and What To Do If the Baby Gets Sick as their third choice (25%) (Table 15). Twenty-five percent of Group II reported their need as Common Ailments of Infants. Jointly the groups reported 10 needs and/or concerns in the third category of ranking.

These data suggest that mothers of Groups I and II are looking forward to both information needs and concerns that will present themselves during the first weeks of the post partum period.

Table 14  
Second Ranked Informational Need and Concerns

Concern	Group I	Group II
Pros and cons of breastfeeding and formula feeding	.0%	16.7%
Bowel and bladder habits	8.3%	.0%
Feeding technique	.0%	8.3%
Sleeping	.0%	16.7%
Safety practices	25.0%	16.7%
Bathing	25.0%	16.7%
Determining when and what to do if the baby gets sick	8.3%	33.3%
Infant growth and development	8.3%	.0%
Care of navel and/or circumcision	8.3%	8.3%
Crying	8.3%	.0%
Immunization	8.3%	.0%

Chi square = 8.8666;  $p < .4497$

Table 15  
Third Ranked Informational Need and Concern

Concern	Group I	Group II
Pros and cons of breastfeeding and formula feeding	8.3%	.0%
Feeding technique	16.7%	8.3%
Safety practices	8.3%	16.7%
Bathing	16.7%	.0%
Common ailment	8.3%	25.0%
Determining when and what to do if the baby gets sick	25.0%	16.7%
Infant growth and development	8.3%	.0%
Infant stimulation	.0%	16.7%
Immunization	.0%	8.3%
Maternal/infant bonding	8.3%	8.3%

Chi square = 8.866;  $p < .4497$

#### Fourth Ranked Informational Need and Concerns

Thirty-three percent of Group I ranked Determining When and What To Do If the Baby Gets Sick as their fourth important need and/or concern (Table 16). Group II ranked Bathing and Infant Growth and Development with equal importance of 25%. Jointly the two groups reported 12 informational needs and/or concerns.

Again, Group I repeated the concern of When and What To Do If the Baby Gets Sick, which is verifying that this is a definite concern of this group of mothers. Group II selected informational needs and concerns that represented two different facets of care.

#### Fifth Ranked Informational Need and Concern

Thirty-three percent of Group I ranked Infant Growth and Development as their fifth important need (Table 17). Twenty-five percent of Group II ranked Maternal-Infant emotional attachment as their fifth important need. Jointly the two groups reported 11 different needs and/or concerns in the category of fifth need and/or concerns.

Table 16  
Fourth Ranked Informational Need and Concerns

Concern	Group I	Group II
Bowel and bladder habits	8.3%	.0%
Feeding technique	.0%	16.7%
Safety practices	8.3%	.0%
Bathing	8.3%	25.0%
Common ailments	.0%	16.7%
Determining when and what to do if the baby gets sick	33.3%	.0%
Infant growth and development	.0%	25.0%
Infant stimulation	.0%	8.3%
Care of navel and/or circumcision	8.3%	.0%
Crying	16.7%	.0%
Immunization	16.7%	.0%
Maternal/infant bonding	.0%	8.3%

Chi square = 21.000;  $p < .033$



Table 17  
Fifth Ranked Informational Need and Concern

Concern	Group I	Group II
Feeding technique	8.3%	.0%
Sleeping	.0%	8.3%
Safety practices	8.3%	.0%
Bathing	8.3%	.0%
Infant growth and development	33.3%	8.3%
Infant stimulation	16.7%	16.7%
Care of navel/circumcision	.0%	16.7%
Crying	.0%	16.7%
Equipment and clothing	8.3%	8.3%
Immunization	8.3%	.0%
Maternal/infant bonding	8.3%	25.0%

Chi square = 11.800;  $p < .2987$

## CHAPTER IV

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

Group I's informational needs and/or concerns focus on the infant's physiological needs. Group II has begun to select informational needs and concerns classified in Maslow's Hierarchy of Needs as the need for love.

The primary goal of nurses on post-partum units is to meet the needs of the mother and infant. Education is an effective vehicle through which this dyad's needs can be met. In order for education to be utilized and benefit the adolescent mother, it must meet her needs (Badger et al., 1976; Steinmann, 1979).

Adolescent mothers' children have scored lower on mental/motor development tests than older mothers (Broman, 1981). Children of younger mothers have lower IQ's than older mothers (Oppel & Royston, 1971). The offspring of adolescents also tend to demonstrate more deviant behavior (Broman, 1981).

Educating the adolescent mother is a key instrument for effecting change in the infant's outcome. The scores of mental/motor development tests of young adolescent mothers' infants who attended infant care classes after being discharged from the hospital were comparable to older adolescents

and older mothers' infants' scores (Badger, 1981).

The objective of this study was to compare adolescent and adult primiparous mothers' informational needs and concerns. By comparing the two groups, it was revealed that more differences exist than those solely based on age. With age differences comes a definite difference in the groups' stages of developing maturity.

The first hypothesis, adolescent primiparous women will choose a significantly different number of questions and concerns concerning infant care than adult primiparous women, was statistically supported. The members of Group II asked more questions than Group I, but the reason for the significant difference has not been uncovered. It can only be hypothesized that the adolescent mother expressed fewer concerns and needs because of a lack of awareness of what infant care entails.

Hypothesis II stated that adolescent primiparous mothers will have significantly different informational needs and concerns than adult mothers. The results of the study did not statistically support this hypothesis. The descriptive statistics showed that each group had specific questions and concerns they felt were more important. The primary informational need and/or concern for both groups was feeding. The adolescent mothers were more concerned with what to feed their infants and the adult mothers were concerned with developing their technique in feeding.

The descriptive statistics also demonstrated that adolescent needs and concerns were geared more towards the physiologic care of the infant, findings

which were similar in other studies (Badger et al., 1976; Mercer, 1980). Of relatively less importance for both groups, 50% of the adult mothers considered the establishment of maternal-infant bonding as a need and/or concern, while 16.7% of the adolescent mothers reported it as a need and/or concern.

### Conclusions

The data suggest that the adult mothers' higher educational level may influence their ability to better meet the physical and intellectual needs of their infants. The marriages of the adult group have a higher incidence of success which may enable them to supply a secure family environment for their infants' subsequent growth. On the other hand, the adolescent may require the support of her family, community and the health team to assist in this difficult task.

Even though the adolescent mothers had more experience in caring for infants, babysitting does not provide a total picture of infant care. The adult mothers' experience in caring for siblings is more realistic, and this may be a contributing factor as to why these mothers waited a longer period of time before beginning childbearing.

The adolescent mothers' knowledge of infant care was obtained from reading and first-hand experience. Most of the adult mothers had structured classroom experience. The benefits of classroom instruction are more likely realized in those mothers who attended prenatal classes. They also have an

idea of what to expect in post-partum infant care classes, such as the classes' format and the various methods of instruction.

Adolescent mothers' lack of previous exposure to structured classes in a health setting may be an influencing factor in their lesser degree of participation in formalized instruction. Adolescents may also experience difficulty in understanding material geared for adults.

Of those mothers who kept their infants with them most of the time, the adolescents tended not to keep their infants during the night. The reasons for this may be due to: (1) tiredness at night, (2) fear that they may not be able to respond to their infants' needs at night, (3) not fully realizing that they are also responsible for their infants' care at night as well as during the day. This finding needs to be more thoroughly investigated, because once the adolescent mother arrives home it will be primarily her responsibility to care for her infant.

Hypothesis I stated that there would be a significant difference in the number of informational needs and concerns expressed by the primiparous adolescent and adult. Even though this hypothesis was proved statistically, the reason for the difference has not been systematically analyzed. It can only be hypothesized that the adolescent does not have the knowledge or the cognitive ability to express informational needs or concerns surrounding infant care.

The primary concern of both groups was feeding, which is similar to findings in studies of other primiparous women (Adams, 1963). The difference

in the needs expressed by the two groups may mean that the adolescent mother may have ambivalent feelings about which method to chose and therefore may need more information and support regarding the decision to breast or bottle feed her infant.

The other needs and/or concerns by Group I were geared more toward the physiologic care of the infant. This finding is typical of the adolescent mother (Badger et al., 1976; Broman, 1981; Steinmann, 1979). This finding may suggest that adolescent mothers are only capable of focusing on the physiological needs of their infants during early post-partum or that adult mothers progress at a faster pace.

### Recommendations

The major recommendation for future study would be to replicate this study using an experimental design with a larger sample and refine the data collection instrument. The study should be conducted at various hospitals (private, public) to assure that the findings are generalizable to the population. Once the study has been replicated, the sample should be expanded to include adolescents who are classified as being at risk. Also the questionnaire should be administered during the prenatal period and during the early post-partum and late post-partum periods.

In a future study it would be interesting to investigate whether the difference in age will influence the types of parenting methods the two groups choose. In addition to obtaining information on the parents, a longitudinal study

should be done on their children in order to note whether the ages of the parents played a role in their beliefs and attitudes.

The finding that adolescent mothers tend to read magazines about infant care rather than books should be further researched in regard to whether this variable alters the adolescent's knowledge base and how the advertisements within magazines influence the adolescent mothers' choices of specific products and methods of parenting.

A study of the adolescent's expressed needs and concerns regarding infant care should be compared with her actual tested informational needs. The results of this study would support or refute the hypothesis that the adolescent's fewer expressed concerns or needs results from her lack of knowledge about infant care resulting in an inability to formulate questions.

### Nursing Care

The noted differences between the adolescent and adult mothers should be considered when developing infant care classes. The classes that are given in the hospital usually have representatives of both groups of mothers. The instructors must be sensitive to the needs of the adolescent mothers in order for them to become actively involved in the learning process. Many teen-age mothers have not attended prenatal classes and are less familiar with medical terms and the format of the classes.

The fewer numbers of expressed needs and concerns of adolescent mothers should not be taken as a sign of lack of interest in infant care classes

or that these mothers are more prepared for parenthood. The instructor should utilize open ended questions as a tool to assess their learning needs and concerns. When the population of adolescent mothers is extremely low on a unit, in addition to attending the floor infant care classes, individual instruction may prove beneficial.

In hospital settings where there is a high number of adolescent deliveries, it may prove beneficial to establish infant care classes specifically for these mothers. Because the adolescents are striving toward self-identity, peer group support may assist them to feel less overwhelmed and alienated (Badger, 1981; Badger et al., 1976).

The class format should be group discussion rather than a didactic approach. Also the teacher should use demonstration as a learning tool, which would enable her to assess and reinforce the adolescent mothers' skills. The instructor of the class should be a role model for the adolescent mother (Badger, 1981; Badger et al., 1976).

When possible the "significant other" of the adolescent mother should participate in the classes. The married adolescent husband especially should be encouraged to attend the class. This would give him an opportunity to learn about infant care and develop his skills. The class could also be used as a vehicle to assist him in the transition to the parenting role.

Upon discharge from the hospital the nurse should assess the adolescent's ability to meet her infant's needs. She should also discuss what the adolescent mother feels about her ability to take on the mothering role.



Because adolescents tend more to read magazines as a source of infant care information, the nurse can suggest reading material (books and/or magazines) that can be used as a resource for information.

Immaturity of the adolescent mother lessens her ability to foresee the problems that they will face at home (Williams, 1974). The married adolescent may especially be overwhelmed if she is living independently from her parents. Follow-up by telephone is a means to assess the adolescent mother's adjustment to parenthood and gives her the opportunity to verbalize her problems. Telephone communication with adolescent mothers gives the nursing staff the opportunity to function as a support system (Smith, 1975).

Infant care classes after discharge may be an optimal method for educating the adolescent about her new responsibilities. These classes would provide her with needed support, and she could learn how to properly care for her new infant over a longer period of time (Badger, 1981; Badger et al., 1976).

APPENDIX A  
PERSONAL DATA SHEET

1. Code number: \_\_\_\_\_
2. Your age: \_\_\_\_\_ years
3. Your education: \_\_\_\_\_ years
4. Your occupation: \_\_\_\_\_
5. Your husband's age: \_\_\_\_\_ years
6. Your husband's education: \_\_\_\_\_ years
7. Your husband's occupation \_\_\_\_\_
8. Where do your parents live? \_\_\_\_\_
9. Where do your husband's parents live? \_\_\_\_\_
10. How many brothers and sisters are older and younger than you?
  - a. \_\_\_\_\_ older
  - b. \_\_\_\_\_ younger
  - c. \_\_\_\_\_ same
11. How many brothers and sisters in your husband's family are younger and older than him?
  - a. \_\_\_\_\_ older
  - b. \_\_\_\_\_ younger
  - c. \_\_\_\_\_ same
12. How long have you been married? \_\_\_\_\_ years
13. Experience caring for an infant? (circle one)
  - a. No experience
  - b. Experience: 1. Babysitting 2. Caring for siblings 3. Work  
4. Other

14. Did you attend any classes of instruction on infant care during your pregnancy?

- a. \_\_\_\_\_ no  
b. \_\_\_\_\_ yes (specify) \_\_\_\_\_

15. What book or magazines on child care have you read, if any?

- a. \_\_\_\_\_ no  
b. \_\_\_\_\_ yes (specify) \_\_\_\_\_

16. What are your and your husband's religious preferences?

	You	Husband
Protestant	_____	_____
Catholic	_____	_____
Latter-day Saint	_____	_____
Jewish	_____	_____
Other (please specify)	_____	_____

17. What method do you plan to use to feed your baby? (circle one)

- a. breastfeed  
b. bottlefeed  
c. breastfeed and supplement with a bottle

18. Approximately how much time have you had the baby with you since your delivery? (circle one)

- a. none  
b. at feeding times only  
c. all day and all night  
d. during the daytime only (8 a.m. to 8 p.m.)  
e. more often than feeding times but less than all day  
f. other

## APPENDIX B

### EXPRESS INFANT CARE CONCERNS AND QUESTIONS

1. Code number: \_\_\_\_\_
2. Below is a list of informational needs and concerns some women have about infant care.
3. Please check the ones most important to you, then rank the five most important to you.

Informational needs and/or concerns

Place check in this column

Rank five most important

A. Pros and cons of breastfeeding and formula feeding	_____	_____
B. Bowel and bladder habits	_____	_____
C. Feeding technique	_____	_____
D. Sleeping	_____	_____
E. Safety practices	_____	_____
F. Bathing	_____	_____
G. Common ailments (diaper rash, chafing etc.)	_____	_____
H. Determining when and what to do if the baby gets sick	_____	_____
I. Infant growth and development	_____	_____
J. Infant stimulation	_____	_____
K. Care of navel and/or circumcision	_____	_____
L. Crying	_____	_____
M. Equipment and clothing for the infant	_____	_____
N. Immunization	_____	_____
O. Maternal/infant emotional attachment	_____	_____

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